

CLAIMS:

We claim:

Sub 17 1. ~~A xerographic component comprising:~~

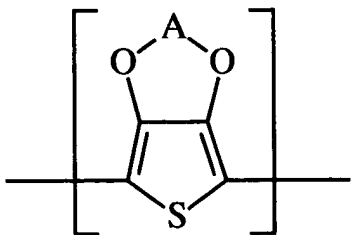
- ~~a) a substrate; and thereon~~
- ~~b) a coating comprising a thiophene-based material.~~

2. ~~A xerographic component as claimed in claim 1, wherein said substrate comprises a polymer.~~

3. ~~A xerographic component as claimed in claim 2, wherein said polymer is selected from the group consisting of fluoropolymers, chloropolymers, silicone rubbers, polyimides, polyamides, polypropylenes, polyethylenes, polybutylenes, polyarylenes, acrylonitriles, polycarbonates, polysulfones, ethylene diene propene monomer, nitrile rubbers and mixtures thereof.~~

Sub 17 4. ~~A xerographic component as claimed in claim 3, wherein said fluoropolymer is selected from the group consisting of a) copolymers of vinylidene fluoride, hexafluoropropylene and tetrafluoroethylene; b) terpolymers of vinylidene fluoride, hexafluoropropylene and tetrafluoroethylene; and c) and tetrapolymers of vinylidene fluoride, hexafluoropropylene and tetrafluoroethylene and a cure site monomer.~~

5. A xerographic component as claimed in claim 1, wherein said thiophene-based material has the following formula I:



wherein A is an optionally substituted C₁-C₄ alkylene radical.

6. A xerographic component as claimed in claim 5, wherein said optionally substituted C₁-C₄ alkylene radical is selected from the group consisting of a methylene radical, alkyl-substituted methylene radical, 1,2-ethylene radical, 1,2-ethylene radical substituted by C₁-C₁₂-alkyl, 1,2-ethylene radical substituted by phenyl, and a 1,2-cyclohexylene radical.

7. A xerographic component as claimed in claim 6, wherein said thiophene-based material is a polyethylene dioxythiophene.

8. A xerographic component as claimed in claim 7, wherein said thiophene-based material is 3,4 polyethylenedioxythiophene.

9. A xerographic component as claimed in claim 1, wherein said xerographic component further comprises an intermediate layer positioned between said substrate and said thiophene-based material coating.

10. A xerographic component as claimed in claim 9, wherein said intermediate layer comprises a polymer.

11. A xerographic component as claimed in claim 10, wherein said polymer is selected from the group consisting of fluoropolymers, chloropolymers, silicone rubbers, polyimides, polyamides, polypropylenes, polyethylenes, polybutylenes, polyarylenes, acrylonitriles, polycarbonates, polysulfones, ethylene diene propene monomer, nitrile rubbers and mixtures thereof.

12. A xerographic component as claimed in claim 1, wherein said component further comprises an outer coating on said thiophene-based material coating.

13. A xerographic component as claimed in claim 12, wherein said outer coating comprises a polymer.

14. A xerographic component as claimed in claim 12, wherein said thiophene-based material coating is an adhesive.

15. A xerographic component as claimed in claim 14, wherein said adhesive further comprises polystyrene sulfonic acid.

16. A xerographic component as claimed in claim 1, wherein said substrate is in the form of a belt.

17. A xerographic component as claimed in claim ¹16, wherein said xerographic component is capable of receiving a bias.

18. A xerographic component as claimed in claim ¹16, wherein said xerographic component is an intermediate transfer belt.

19. A xerographic component as claimed in claim ¹16, wherein said xerographic component further comprises a heating element associated with said substrate.

20. A xerographic component as claimed in claim 1, wherein said substrate is in the form of a hollow cylinder.

21. A xerographic component as claimed in claim 20, wherein said xerographic component is capable of receiving a bias.

22. A xerographic component as claimed in claim 20, wherein said xerographic component is an intermediate transfer roll.

23. A xerographic component as claimed in claim 20, wherein said xerographic component further comprises a heating element associated with said hollow cylinder.

24. A xerographic component comprising:
a) a substrate comprising a ^{fluoropolymer} polymer, and thereon
b) a coating comprising a thiophene-based material.

25. A xerographic component as claimed in claim 24, wherein said thiophene-based material is 3,4 polyethylenedioxythiophene.

26. An image forming apparatus for forming images on a recording medium comprising:

a charge-retentive surface to receive an electrostatic latent image thereon;

a biasable component capable of receiving an electrical bias for charging one of a xerographic component or copy substrate surface;

a development component to apply toner to said charge-retentive surface to develop said electrostatic latent image to form a developed image on said charge retentive surface;

a transfer component to transfer the developed image from said charge retentive surface to a copy substrate; and

a fuser component for fusing said developed image to a surface of said copy substrate, wherein at least one of said biasable component, transfer component and said fuser component comprise:

- a) a substrate; and thereon
- b) a coating comprising a thiophene-based material.